

(54) [Name of Document] GLUCOSE UPTAKE INHIBITOR AND GLUT4
TRANSLOCATION INHIBITOR IN FAT CELLS, GLUCOSE UPTAKE
ACTIVATOR IN MUSCLE CELLS AND FOOD FOR REDUCING FAT

(57) [Abstract]

[Problems to be Solved] To provide new applications of an extract of tea and components thereof, based on results of studies on effects of the tea extract and the components on glucose uptake activity, functions of glucose transporter 4 (GLUT4) or the like.

[Means for Solving the Problems] A glucose uptake inhibitor and an insulin stimulation-responsive glucose uptake inhibitor in fat cells containing any one of catechin gallate, catechin having a gallate ester and a tea extract as an effective component are provided. As an amount of fat cells is reduced, obesity and various disorders caused by the obesity can be treated and prevented. In addition, the uptake of the glucose in the muscle cell is activated, so that the excess glucose is taken into the muscle cell and consumed. Therefore, sugar concentration in the blood is not increased and there is no lassitude, etc. caused by obesity control.